

REMARKS

Claims 1-34 and 36-41 were previously pending in this application. By this amendment, the Applicant is canceling claims 32 and 34 without prejudice or disclaimer. Claims 1-3, 19, 20, 22-27, 29-31, 36 and 41 have been amended. New claims 42-58 have been added. As a result claims 1-31, 33 and 36-58 are pending for examination with claims 1, 19, 20, 21, 27, 30 and 48 being independent claims. No new matter has been added.

Allowable Subject Matter

Claims 11-13, 15 and 18 were indicated as containing allowable subject matter. The Applicant has deferred re-writing said claims in independent form, and instead presents arguments in favor of the patentability of the independent claims from which said claims respectively depend.

Summary of Telephone Conference with Examiner

On Tuesday, August 3rd, the Applicant's attorneys and the primary examiner and the supervisory examiner discussed the patentability of claims as pending in view of the Office Action mailed May 4, 2004.

Regarding independent claims 1 and 19, the Applicant's attorneys advocated that the combination of Saputo and Sexton was improper. No agreement was reached as to the combination being improper. Arguments regarding the improperness of the combination of Saputo and Sexton are reiterated below for completeness of the record. The Examiners agreed with the Applicant's attorneys that claims 1 and 19 as amended herein are patentable over the art of record.

Regarding independent claim 20 as amended herein, the Examiners agreed with the Applicant's attorneys that the art of record does not disclose a switch mechanically connected to a valve.

Regarding independent claim 27 as amended herein, the Examiners agreed with the Applicant's attorneys that the art of record does not disclose a second switch electrically connected to the at least one power source and electro-mechanically connected to the self-sealing valve.

Regarding independent claim 30, the Examiners agreed with the Applicant's attorneys that the art of record does not disclose a fluid controller being coupled to the inflatable bladder in a position, and in the position the fluid controller being adapted to permit air to exit the bladder through the fluid controller and to be provided to the bladder through the fluid controller.

Regarding paragraph 13 of the Office Action, the Examiners agreed that the specification may be amended to include a definition as supported by the specification, for the "term" recess, and that said definition would be used to construe the claims. Accordingly, a definition for the "recess" is included herein below.

Additionally, the Examiners requested that the specification be amended to include a definition as supported by the specification for the term "profile of the bladder," as used in the claims as amended herein.

Preliminary Matters

Claims 29 and 36 were rejected for informalities. Claims 29 and 36 have been amended to overcome said objections. Accordingly, withdrawal of said objections is respectfully requested.

Rejections of claims 1-3, 32, 34 and 37 under 35 U.S.C. §112

The Office Action rejected claims 1-3, 32, 34 and 37 under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 1 has been amended to recite that "the pump [is] disposed at least partially within a profile of the bladder" and thereby overcome the rejection of claim 1. As a result of the amendment, claims 2, 3 and 37 also overcome the rejection. Claims 32 and 34 have been canceled. Accordingly, withdrawal of these rejections is respectfully requested.

Rejections Under 35 U.S.C. §102

The Office Action rejected claims 30, 31 and 33 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,332,760 to Chung (hereinafter Chung).

Chung discloses that a pump 30 that is coupled to an airbed in a first position to inflate the airbed. Chung further discloses that the pump is detached from the airbed and “reversely fitted” to the airbed to deflate the airbed.

Claim 30 has been amended to recite, *inter alia*, an inflatable device comprising “[a] fluid controller ... coupled to [an] inflatable bladder in a position, and in the position the fluid controller being adapted to permit air to exit the bladder through the fluid controller and to be provided to the bladder through the fluid controller.” As discussed and agreed with the Examiners during the telephone conference, Chung does not disclose such a device. Accordingly, claim 30 is patentable over Chung. Claims 31 and 33 depend from claim 30 and are patentable for at least the same reasons as claim 30.

Withdrawal of the rejections of claims 30, 31 and 33 is respectfully requested.

Rejections Under 35 U.S.C. §103

A. Regarding claims 1-3, 5, 14, 16, 17, 29 and 38-40

The Office Action rejected claims 1-3, 5, 14, 16, 17, 29 and 38-40 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,287,095 to Saputo, et al. (hereinafter Saputo) in view of U.S. Patent No. 5,068,933 to Sexton (hereinafter Sexton).

The Office Action states that Saputo discloses an internal air pump for inflatables comprising an inflatable bladder and a fluid controller or internal air pump, whereby the pump occupies a volume bounded by portions of the bladder. The Office Action acknowledges that Saputo fails to disclose that the internal pump may be electrically powered. The Office Action states that Sexton discloses an air pillow comprising an inflatable bladder and an electrically powered mechanical air compressor. The Office Action alleges that it would have been obvious to one of ordinary skill in the art to modify the invention of Saputo to incorporate an electrically powered air compressor, as suggested by Sexton, because an electrically powered pump performs the same function of inflating the two inflatable device, but does so with little physical exertion on the part

of a user, and allows the user to inflate the device in a quicker fashion. The Applicant responds as follows.

Saputo discloses a compressible pump disposed internally to an inflatable device for injecting air into the inflatable device (abstract). The pump is thin-walled, lightweight, highly elastic, flexible plastic (abstract). Saputo discloses that an external force is to be applied to the pump to force air from the pump chamber into the exhaust ducts which deliver air into the inflatable device (abstract).

Sexton discloses a sleeping pillow having an inflatable bag and a compressor powered by dry cell batteries to deliver air to the inflatable bag. The pump is located within a pillow case, but external to the inflatable bag.

I. The combination of Saputo and Sexton is Improper

Saputo is directed to the benefits of using a compressible pump to inflate an inflatable device. Saputo discloses that a suitable pump is thin-walled, lightweight, highly elastic, flexible plastic.

By contrast, Sexton teaches that an electric compressor can be used to inflate an inflatable device. The compressor disclosed in Sexton is external to any inflatable structure. Sexton merely teaches that an electrical compressor can be used to inflate an inflatable device and that the pump is to be disposed next to an inflatable device. Neither Saputo nor Sexton disclose or suggest that an electric pump should or can be located within a profile of an inflatable bladder.

Further, if the device in Sexton were disposed in Saputo, it would be rendered inoperable, as no provisions for electrical connection nor drawing air into the bladder or exhausting air from the inflatable device is provided in either Sexton or Saputo. Accordingly, the asserted combination is not obvious, absent additional modifications to render the combination operable, which are not disclosed or suggested by the asserted references.

Because there is no motivation in any of the art of record to modify Saputo to include the electric pump of Saputo, and because the combination is inoperable without further modification, the combination of Saputo and Sexton is improper and the rejections of 1-3, 5, 14, 16, 17, 29 and 38-40 should be withdrawn.

II. Claims 1-3, 5, 14, 16, 17, 29 and 38-40 are patentable over the combination of Saputo and Sexton

Even assuming that the combination of Saputo and Sexton were proper, which it is not, claim 1 is patentable over the combination. Claim 1 has been amended to recite “[a] fluid controller ... coupled to [an] inflatable bladder in a position, and in the position the fluid controller being adapted to permit air to exit the bladder through the fluid controller and to be provided to the bladder through the fluid controller.” As agreed by the Examiners during the telephone conference, neither Saputo nor Sexton disclose such a structure. Accordingly, claim 1 is patentable over the asserted combination. Claims 2-3, 5, 14, 17, 29 and 38-40 depend from claim 1 and are patentable for at least the same reason. Withdrawal of the rejection of claims 1-3, 5, 14, 16, 17, 29 and 38-40 is respectfully requested.

B. Regarding claims 6-10, 19 and 41

The Office Action rejected claims 6-10, 19 and 41 under 35 U.S.C. §103(a) as being unpatentable over Saputo, in view of Sexton, and further in view of U.S. Patent No. 5,746,873 to Graf (hereinafter Graf).

The Office Action states that the combination of Saputo and Sexton is to be applied as it was applied to claim 1. The Office Action indicates that the combination discloses all aspects of claim 19, except a housing that comprises a flange. The Office Action alleges that it would have been obvious to one of ordinary skill in the art to develop an inflatable bladder with wall and flange separations, as taught by Graf, with a separated housed air pump to be placed within the inflatable bladder, as suggested by Saputo, so that both parts operate more efficiently. The Office Action further alleges that separation of the pump from the inflatable bladder provide the user with easier access to the pump in case of mechanical failure. The Applicant responds as follows.

The Applicant does not accede to the properness of the combination Saputo and Sexton with Graf, and the Applicant reiterates that the combination of Saputo and Sexton is improper.

I. Regarding claims 6-10 and 41

Because Graf does not overcome the deficiencies of claim 1 that were discussed above, claim 1 is patentable over the combination of Saputo, Sexton and Graf, for the reasons stated above. Claims 6-10 and 41 depend from claim 1 and are therefore patentable over Saputo, Sexton and Graf for at least the same reasons as claim 1.

II. Regarding claim 19

As a preliminary matter, the Applicant respectfully points out that claim 19 does not recite a flange. Accordingly, it is not apparent why the combination of Saputo, Sexton and Graf was applied to claim 19. However, regardless of whether Graf is included in the rejection, claim 19 is patentable over the combination.

Similar to claim 1, claim 19 recites “[a] fluid controller ... adapted to permit exhaustion of air ... from the bladder through the fluid controller.” Accordingly, as agreed by the Examiners during the telephone conference, because none of Saputo, Sexton and Graf recite such a device, claim 19 is patentable over the combination of Saputo, Sexton and Graf. Additionally, claim 19 is patentable over Saputo, Sexton and Graf because none of Saputo, Sexton and Graf disclose an inflatable device “adapted to permit exhaustion at a user selectable rate,” as recited in claim 19

Accordingly, withdrawal of the rejection of claim 19 is respectfully requested.

C. Regarding claims 20-21

The Office Action rejected claims 20-21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,170,522 to Walker (hereinafter Walker) in view of Japanese Patent No. JP-05137809-A to Nagashima (hereinafter Nagashima).

The Office Action states that Walker discloses an airbed comprising a bladder, a fluid controller comprising a pump in fluid communication with the airbed through a third solenoid valve. The Office Action states that Walker further discloses an adjustment device that has three switches 26A, 26B and 26 C connected to three different valves, wherein the switches are adapted to mechanically actuate the three valves. The Office Action acknowledges that Walker fails to disclose that the pump and adjustment device have a mating locking mechanism. However, the Office Action alleges that it

would have been obvious to one of ordinary skill in the art to modify Walker to include the mating locking mechanism to releasably secure the remote control because remote controller can be misplaced, and releasably attaching an adjustment device allows a user to locate the adjustment device.

The Applicant reiterates his arguments as made in the response to Office Action filed with the U.S.P.T.O. on February 6th, 2004 which stated that Nagashima is non-analogous art. Additionally, the Applicant does not accede to the properness of the combination of Walker and Nagashima.

Walker discloses an adjustable airbed having a plurality of pivotally connected plates that are moved to bend the mattress. Walker discloses that the airbed includes a switch 26C that controls a solenoid valve so that air under pressure moves into a chamber of the airbed. As such, the switch is electrically connected to the valve to actuate the valve.

The Applicant understands Nagashima (which consists of an Abstract and single figure) to disclose a fire pump having a remote control to control the operation of the pump that can be removably located on the fire pump.

Neither Nagashima nor Walker teach or suggest that a control on an inflatable bed should be modified in the manner proposed in the Office Action. However, even assuming that the combination of Walker and Nagashima is proper, which it is not, claim 20 is patentable over the combination. In particular, claim 20 recites, *inter alia*, “an adjustment device including a first switch mechanically connected to [a] valve and adapted to mechanically actuate the valve.” To the contrary, as stated above, Walker discloses that a switch is electrically connected to a valve. Nagashima discloses that the switch disclosed therein is a remote control and as such is not mechanically connected to the valve. Accordingly, because neither Walker nor Nagashima disclose a switch mechanically connected to a valve, claim 20 is patentable over the combination of Walker and Nagashima.

Claim 21 depends from claim 20 and is patentable for at least the same reasons as claim 20. Accordingly, withdrawal of these rejections is respectfully requested.

D. Regarding claims 22-26

The Office Action rejected claims 22-26 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Nagashima and further in view of Saputo. Saputo does not overcome the deficiencies of the asserted combination of Walker and Nagashima as discussed above with reference to claim 20. Because claims 22-26 depend from claim 20, they are patentable for at least the same reasons as claim 20. Withdrawal of the rejections of claims 22-26 is therefore respectfully requested.

E. Regarding claims 27 and 28

The Office Action rejected claims 27 and 28 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of U.S. Patent No. 5,598,593 to Wolfe (hereinafter Wolfe).

The Office Action states that Walker discloses all aspects of claim 27 except a self-sealing valve. The Office Action alleges that Wolfe discloses an inflatable airbed, and discloses various valves for the airbed, such as quick release valves 16 and 24 and standard safety valves 17 and 25. The Office Action states that Wolfe discloses (at col. 5, lines 30-38) that valves 17 and 25 are preferably self-sealing valves. The Office Action alleges that it would have been obvious to one of ordinary skill in the art to modify Walker to include self-sealing valves, as described in Wolfe, because they offer a more controlled environment for adjusting the inflation of the inflatable bladder. The Applicant responds as follows.

As stated above, Walker discloses an adjustable airbed having a plurality of pivotally connected plates that are moved to bend the mattress, and a switch 26C that is electrically connected to a solenoid valve to control air under pressure that moves into a chamber of the airbed.

Wolfe discloses an inflatable airbed including an inflatable lower chamber and an inflatable upper chamber. Each chamber includes at least one valve for inflating and deflating the chamber. Wolfe discloses that the upper chamber includes a standard safety valve 25 and that the lower chamber includes a standard safety valve 17. Wolfe also states that the lower chamber and the upper chamber are independently inflatable and deflatable through their respective valves (col. 3, lines 26-29). Wolfe discloses that the valves may

be self-sealing valves that allow air to be forced into the chambers, but must be pinched to allow air to flow out of the chambers (col. 5, lines 33-38).

The airbed of Walker includes a solenoid valve through which air is introduced into a chamber of an airbed. A solenoid is controlled by a switch that is electrically connected to the solenoid valve. Neither Walker nor Wolfe disclose the desirability of adding a one way valve to device of Walker, as suggested in the Office Action. It is also not apparent why such a modification would be made to a device of Walker, as the device disclosed in Walker, already includes a solenoid valve for inflation and deflation. In addition, if the one way valve of Walker were brought into the device of Walker, it is not apparent that the combination would work, without undue experimentation. For example, how would the solenoid be used to provide air to the device and to release air from the device. Accordingly, there is no motivation to modify Walker in the manner suggested in the Office Action. Therefore, withdrawal of the rejections of claims 27 and 28 is respectfully requested.

Further, claim 27 recites “a second switch electrically connected to the at least one power source and electro-mechanically connected to [a] self-sealing valve of [a] fluid controller, such that it may selectively open the self-sealing valve.” Even if Walker and Wolfe were combined in the manner suggested in the Office Action, the device so-modified would not include a switch electro-mechanically connected to a self-sealing valve of the fluid controller, such that it may selectively open the self-sealing valve. In fact, neither Walker nor Wolfe suggested that it is possible or desirable to have a switch electro-mechanically connected to a self sealing valve.

Regarding Paragraph 13 of the Office Action

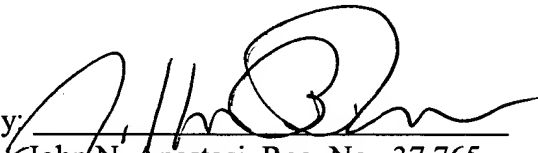
Regarding paragraph 13 of the Office Action, the Examiners agreed during the telephone conference that the specification may be amended to include a definition (consistent with the specification) for the term “recess,” and that said definition would be used to construe the claims. Accordingly, the specification has been amended herein to define the term “recess” as an indentation.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,
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Amendments to the Drawings

Please replace drawing sheet 1 in which FIG. 2 has been amended to include reference number 14, contained in drawing sheet(s) 1 with the replacement FIG. 2 included herewith in an Appendix. Amendments to the FIG. 2 are shown in red.



Appin. No. 09/859,706
Amdt. Dated August 31, 2004
Reply to Office Action of May 4, 2004

Annotated Sheet Showing Changes

1/6

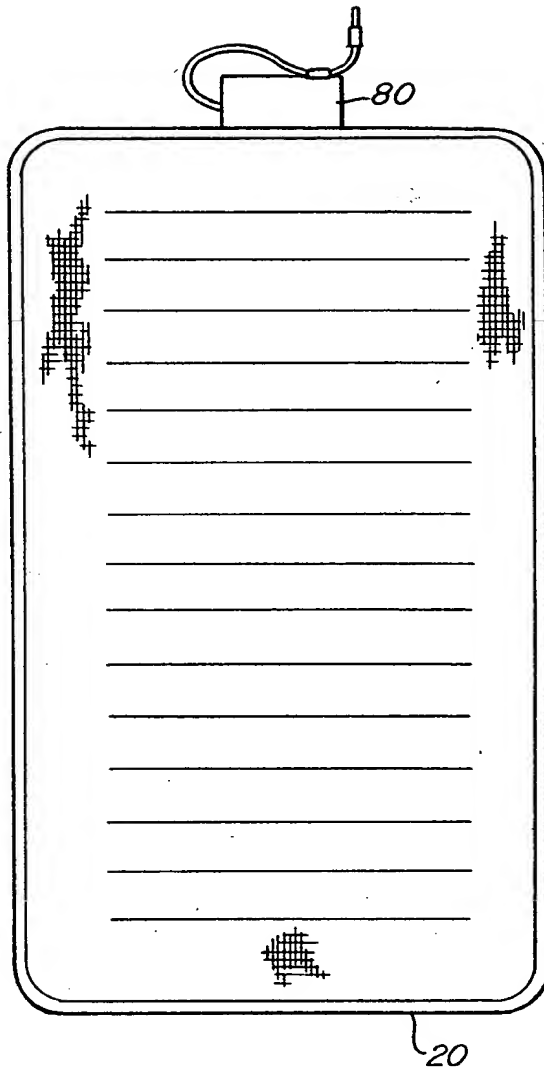


Fig. 1
(PRIOR ART)

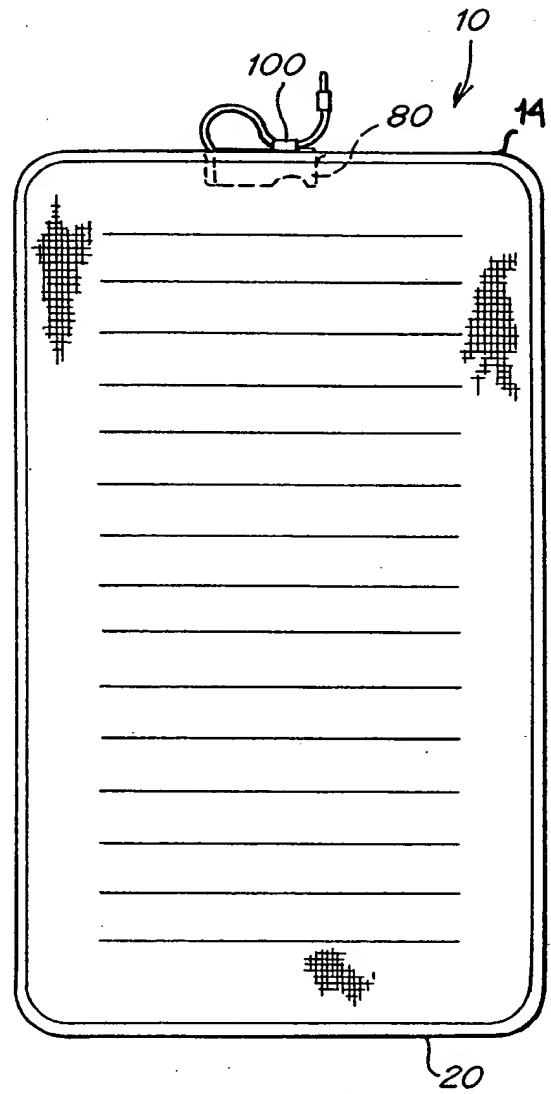


Fig. 2